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EXAMINER	
QIN, YIXING	
ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,330	KASHIHARA, ATSUSHI	
	Examiner	Art Unit	
	Yixing Qin	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 1950*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5-20 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5-20 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 January 2001* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 9/20/05, all requested changes have been entered.

Response to Arguments

Applicant's arguments filed 9/20/05 have been fully considered but they are not persuasive. The argument is that the Fan reference does not show 1) whether inputted information represents an image and 2)whether an inputted image has an equal or higher resolution than a predetermined resolution. Also, the arguments also discuss that 3) even if resolution of the input data is high, but the data is not an image, then no judgment is performed. However, the claims do not address what happens when data is not found to be an image.

Going back to 1), Fan discloses in column 2, lines 29-34 the scanning of an image and it is sampled at the resolution of the template. Although not explicitly stated, it would be inherent that an image would be judged to have an attribute of image. Also, for 2), Fan discloses in column 2, lines 17-20, and 35-47 the sampling of image data at, for example, 8, 16 or 32 bits. Column 4, lines 48-57 discloses the judgment of whether counterfeiting is occurring by comparing images from a low resolution to a high resolution (i.e. 16 bit). Since the image data is sampled at 8, 16 or 32 bits, one can say that the sampled data would be in high resolution at 16 or 32 bits and column 4, lines 48-57 discusses the judgment of whether that image data is currency. All independent

claims recite the discussed features, and, as mentioned above, the Examiner believes Fan still reads on the newly amended claims.

Claim Rejections - 35 USC § 103

1. Claims 1, 19, 20, and 22

A control method for an image forming system where an image processing apparatus for generating image data is connected to an image forming apparatus for forming a visible image based on the image data on a print medium, in said image processing apparatus, said method comprising:

- **an input step of inputting print information, <u>wherein the print information includes at least an attribute of image</u>;**
- Fan discloses in column 2, lines 30-37 Fan discloses that the "...image ...is <u>scanned</u> (i.e. inputted) by the scanning part of the copier and that (t)he <u>information</u> of the scanned color image is typically organized into three or four channels."
- **an object image judgment step of judging whether or not image data indicated by said print information inputted at said input step ~~is in high quality~~, <u>has a resolution equal or higher than a predetermined resolution and said attribute represents an image</u>;**
- Fan discloses in Fig. 3 the program for his counterfeit detection invention and in column 2, lines 26-28, that a "...currency detector 1 is placed in parallel to the

normal video pass 30...and...that a data processor (CPU) 22 performs the functions of the detector 1."

- Fan discloses in column 2, lines 17-22 that a one dollar bill may be sampled at 16dpi or 32dpi for the purpose of counterfeit detection. In column 4, lines 48-57, Fan discloses that matching is done from a low to a high resolution with high resolution being 16dpi. Although it is not explicitly stated, it would be obvious to have a judgment step in order to determine whether an image is of "low" or "high" resolution. (i.e. if an image is fed in as 16dpi, Fan's invention would recognize this as high resolution). Also, note the discussion in the response to arguments.
- **a particular image judgment step of, if it is judged at said object image judgment step that said image data ~~is in high quality~~, has a resolution equal or higher than a predetermined resolution and said attribute represents an image, judging whether or not said image data represents a particular image; and**
- In column 4, lines 48-57 of Fan, Fan discloses the steps for testing for counterfeit reproduction. Fan notes that the computation is performed from a low to a high resolution, which means high resolution images are judged for whether it is a particular image (i.e. a bank note). The Examiner asserts that resolution is a measure of the quality of an image, which seems consistent with the Applicant's specification. (this reads on a **second judgment** step in claim 19)

- **a particular image processing step of, if it is judged at said particular image judgment step that said image represents the particular image, performing predetermined processing.**
- Fan discloses in fig. 3 step S8, and column 4, lines 38-44, that "(s)hould currency be discovered from a positive match between the template and the unknown document, the photocopier or printer 28 may be deactivated....and the operation terminated." As mentioned above, the test is performed from a low to a high resolution.

3. Claim 3

The method according to claim 1, wherein

- **said predetermined resolution is a resolution with which image data can obtain sufficient precision as said particular image.**
- Fan discloses in column 4, lines 55-57 that "...fairly reliable results can be obtained at low resolutions. High resolution is merely used for final verification." Also note in column 2, lines 33-34 that the image is sampled...at the resolution of the template (also see column 2, lines 17-22). This template resolution could also be a **predetermined resolution**.

7. Claim 7

The method according to claim 1, wherein

- **at said object image judgment step, if said image data represents an image, it is judged that said image data is in high quality.**
- Fan discloses in column 4, lines 50-57, that "...the matching is performed hierarchically...from a low resolution to a high resolution (i.e. "high quality")..." In line 56-57, Fan discloses that high resolution is used for final verification (of matching with prestored counterfeit data). Thus, if an image is indeed judged to be representative of a particular image (i.e. a bank note), the inputted image would be of a high resolution (quality) since high resolution is used for final verification.

8. Claim 8

The method according to claim 7, wherein

- **at said object image judgment step, if said image data has a data amount equal to or greater than a predetermined amount, it is judged that said image data is in high quality.**
- Fan teaches in column 2, lines 35-47 the organization of the information of the scanned image. Fan discloses that the two techniques used usually sample images at 8, 16, or 32 dpi. Furthermore, Fan discloses in column 4, lines 53-54 that "...'high resolution' is a relative term. It is typically about 16 pixels per inch..." Thus, sampling images at 16, or 32 dpi (a "predetermined amount of data") would make the image data be of high resolution (high quality).

9. Claim 9

The method according to claim 8, wherein

- **said predetermined amount is a data amount enabling representation of predetermined number of colors.**
- Fan teaches in column 2 lines 35-42, that "(t)he information of a scanned color image is typically organized into three or four channels...(such as) RBG or CIELAB..."

10. Claim 10

The method according to claim 1, wherein

- **said object image judgment step, said particular image judgment step and said particular image processing step are performed in a driver for said image forming apparatus in said image processing apparatus.**
- Fan discloses a process that runs inside a CPU, which in turn effectively acts as a "driver." Fan discloses in Fig. 3 the steps of judging an image's quality (sample image of platen S1), the step of determining whether an image is a particular image (counterfeit detected? S8) and the step of taking some predetermined processing (Deactivate photocopier...S9). Further more in column 2, lines 27-28, that "(a) data processor (CPU) performs the functions of the detector 1."

16. Claim 16

The method according to claim 1, wherein

- **at said particular image processing step, image processing to degrade image quality is performed on said image data.**
- Regarding claim 16, Fan discloses an "image processing (step to) degrade image quality..." Fan discloses in column 4, lines 38-43 that if there is match (i.e. inputted image is a particular image), then "...the portion of the platen image containing the unknown document may be deleted from the final printed image..." The deletion of a portion of the image to be printed lowers the quality of the image.

II. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan (U.S. Patent No. 5,533,144) in view of Wu et al (U.S. Patent No. 6,317,524)

5. Claim 5

The method according to claim 4, wherein

- **at said object image judgment step, if said image data has the resolution equal to or higher than the predetermined resolution and represents an image, and said image data has an image size equal to or greater than a predetermined size, it is judged that said image data is in high quality.**
- Regarding claim 5, the Fan et al discloses all of the limitations except for the idea of the image size used in determination. The secondary reference, Wu et al discloses in column 1, lines 30-48, particularly lines 34-37, that currency has features of various sizes. When a feature of a particular size is detected, then

the copying process is terminated. Both Fan and Wu et al are trying to prevent the counterfeiting of currency and do so by detecting certain features in the image. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to simply apply Wu et al's size detection technique to Fan's invention. The motivation is to increase the detection of currency and to help reduce the possibility of copying of counterfeit currency.

6. Claim 6

The method according to claim 5, wherein

- **said predetermined size is a size with which image data can represent an image as said particular image.**
- Regarding claim 6, the Fan reference discloses, along with the Wu et al reference, all of the limitations in claim 5, with the Wu et al reference further disclosing the limitation of size in the determination of whether an image is high quality. Wu et al discloses in column 1, lines 34-37, that the "...copying (of an image) (is) discontinued if a currency mark of a particular size is found by the currency detection circuit in the printer." Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use size as a way to look for a match with a particular image. The motivation is to see if the inputted image might be sensitive material.

III. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan (U.S. Patent No. 5,533,144) and in view of Claiborne (U.S. Patent No. 6,765,688)

11. Claim 11

The method according to claim 1, wherein

- **at said input step, a print command from an application program is inputted.**
- Fan reference discloses all of the limitations except for the idea of a print command being inputted from a program as part of the input step. The secondary reference, Claiborne discloses in column 7, lines 48-50, that "(t)he print command can either be accessed from the application software 11, or it can be accessed directly through the printer driver program." Both the Fan and the Claiborne references relate to marks (such watermarks) and printing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Claiborne's print command and software with Huang et al's invention. The motivation is to provide the user with on demand printing.

12. Claim 12

The method according to claim 11, wherein

- **said print command is described in Page Description Language.**

- Fan reference discloses all of the limitations except for the format to be in page description language. The secondary reference, Claiborne discloses in column 10, lines 34-35, that usually files to be printed are in a format "...known as a page description language, or 'PDL' ." Both the Fan and the Claiborne references relate to marks (such watermarks) and printing. Although Claiborne does not necessarily say that the print command is in PDL, it is understood from the reference that PDL is a common language that is compatible with printers. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Claiborne's disclosure of PDL with Fan's invention. The motivation is to provide a format that is compatible with printers.

IV. Claims 13, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being Fan (U.S. Patent No. 5,533,144) and in view of Rhoads (U.S. Patent No. 6,285,776).

13. Claim 13

The method according to claim 1, wherein

- **at said particular image judgment step, if said image data includes particular information, it is judged that said image data represents a particular image.**
- Regarding claim 13, Fan reference discloses all the limitations except for the judgment of whether an image is a particular image due to particular information (though Fan does determine the presence of certain data that would be expected

to be found in a high quality image of currency). The secondary reference, Rhoads discloses in column 7, lines 20-22, that "(i)f watermark data associated with a banknote is detected, the photocopier can take one or more steps." Both the Fan and the Rhoads references are trying to prevent the counterfeiting of bank notes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Rhoad's watermark ("particular image") and watermark detection along with Fan's invention to detect whether particular information (such as the watermark) determines a particular image (such as a bank note). The motivation is to be able to better determine if that there is a match for certain criteria between the inputted and prestored images (i.e. if currency is being copied).

14. Claim 14

The method according to claim 13, wherein

- **said particular information is electronic watermark information embedded in said image data.**
- Regarding claim 14, the Fan and Rhoads reference disclose all of the limitations in claim 13 with the secondary reference, Rhoads disclosing in column 10, lines 16-17, that "(w)atermarking can be applied to digital content..." Both the Fan and the Rhoads references are trying to prevent the counterfeiting of bank notes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an digital ("electronic") watermark as disclosed by

Rhoads to be embedded into an image. The motivation is to be able to tell if that there is a match for certain criteria between the inputted and prestored images.

15. Claim 15

The method according to claim 1, wherein

- **at said particular image processing step, a warning message is displayed for a user.**
- Regarding claim 15, the Fan reference discloses all of the limitations except for the warning message display. The secondary reference, Rhoads discloses in column 7, lines 23-25, that if a bank note or the like is detected, then "...display a message reminding the operator that it is illegal to reproduce currency." Both the Fan and the Rhoads references are trying to prevent the counterfeiting of bank notes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Rhoad's message display along with Huang et al's invention to warn users. The motivation is to prevent counterfeiting.

V. Claim 17 is rejected under 35 U.S.C. 103(a) as being Fan (U.S. Patent No. 5,533,144) and in view of Suzuki et al (U.S. Patent No. 5,216,724).

17. Claim 17

The method according to claim 1, wherein

- **at said particular image processing step, said image data is filled with a predetermined color.**
- Regarding claim 17, the Fan reference discloses a form of degradation (deleting a portion of the image) but fails to explicitly disclose any processing related to filling the image with color. The secondary reference Suzuki et al discloses in column 10, lines 11-17 that "...if the step 1009 detects the red stamp mark, indicating the possibility of forgery...(a signal) is sent to the printer unit, thus depositing black toner all over the entire surface and disabling proper copying." Both the Fan and Suzuki et al references are relating to the prevention of counterfeiting currency. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply Suzuki et al's black toner depositing technique to Fan's invention. The motivation would be to make printed counterfeit currency useless due to the degrading of the printed image.

18. Claim 18

The method according to claim 1, wherein

- **at said particular image processing step, an operation history of said image data is stored.**
- Regarding claim 18, the Fan reference discloses all the limitations except for the storage of the operation history. The secondary reference, Rhoads discloses in column 16, lines 27-31, that an "...embedded UID facilitates identifying the machine that generated a counterfeit banknote..." Rhoads disclose in column

111, lines 59-62, that the UID is "...used as an index into a database where the name of the copyright owner...and associated information." Both the Fan and the Rhoads references are trying to prevent the counterfeiting of bank notes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Rhoad's UID technique along with Fan's invention to keep a history of who printed what. The motivation is to be able to track what machines/owners have printed illegal images.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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